REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1 and 5 are currently being prosecuted. The Examiner is respectfully requested to reconsider her rejections in view of the amendments and remarks as set forth below.

Rejection Under 35 USC 102

Claims 1, 5 and 7 stand rejected under 35 USC 102 as being anticipated by Shiki (U.S. Patent 5,043,774). This rejection is respectfully traversed.

The Examiner states that Shiki shows a light emitting diode which emits blue light and provides a semiconductor phosphor with ZnCdS as a host matrix with foreign ions added therein. The Examiner considers this led to inherently disclose light ranging from 495-340nm since the wavelength for the blue range light is 440-485nm. The Examiner also points out that the reference shows preparation of the device by chemical vapor deposition. The Examiner also points out that Shiki shows a donor-acceptor pair of Ag-Cl.

Applicants submit that claims 1 and 5 are no longer anticipated by this reference. Claim 7 has been cancelled rendering this part of the rejection moot. Claims 1 and 5 have been amended. Claim 1 now limits the range of wavelengths to 440-340nm. Thus, Applicants submit that the range of light emitted by Shiki is no longer within the claimed range.

Furthermore, the Shiki reference teaches the formation of the light emitting semiconductor device by forming on a semiconductor substrate a lower resistivity n^+ - ZnS layer 2, then n - ZnS layer 3 doped with a donor-acceptor pair and p^+ - ZnS layer 4. Top and bottom electrodes 5a and 5b are also formed. This device is formed using a MOCVD method or a gas source MBE method to form the film. The compound semiconductor film doped with impurities under thermally non-equilibrium conditions can be stably deposited so that the coactivated ZnS or (Zn,Cd)S film of a high quality and high emission efficiency can be formed. The resultant emission spectrum is broad having a peak around 460-470nm as shown in Figure 4.

Therefore, Shiki does not teach a light emitting diode having emitted light ranging from 440-340nm as recited in claim 1. For these reasons, Applicants submit that claim 1 is allowable.

Claim 5 depends from claim 1 and as such is also considered to be allowable. In addition, this claim further recites that the phosphor was prepared by solid-gas sintering. Applicants submit that this claim is additionally allowable since Shiki does not use solid-gas sintering for the preparation of the phosphor. For these reasons, Applicants submit that claim 5 is additionally allowable.

CONCLUSION

In view of the above remarks, it is believed that the claims clearly distinguish over the patent relied on by the Examiner. In view of this, reconsideration of the rejections and allowance of all of the claims are respectfully requested.

If the Examiner has any questions or comments, please contact Robert F. Gnuse, Reg. No. 27,295 at the offices of Birch, Stewart, Kolasch & Birch, LLP.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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